Amendments to the Claims :

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 **(Withdrawn)** A mammalian immune cell exhibiting a targeted endogenous gene-specific knockout phenotype, said immune cell altering an immune response in a mammal via the modulation of T cell activity.

Claim 2 **(Withdrawn)** The immune cell of claim 1, wherein said cell comprises a construct that inhibits the expression of said endogenous target gene.

Claim 3 **(Withdrawn)** The immune cell of claim 2, wherein said construct is selected from the group consisting of siRNA and hybrid DNA/RNA.

Claim 4 **(Withdrawn)** The immune cell of claim 1, 2 or 3, wherein said endogenous gene encodes a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor.

Claim 5 **(Withdrawn)** The immune cell of any one of claims 1 to 4, wherein said immune cell is selected from the group consisting of an endothelial cell and an antigen presenting cell.

Claim 6 **(Withdrawn)** The immune cell of claim 5, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a myeloid cell, a B lymphocyte and mixtures thereof.

Claim 7 **(Withdrawn)** The immune cell of claim 6, wherein said immune cell is a dendritic cell.

Claim 8 **(Withdrawn)** The immune cell of claim 7, wherein said dendritic cell is activated.

Claim 9 (Withdrawn) The immune cell of any one of claims 1 to 7, wherein said siRNA or hybrid DNA/RNA is provided within a plasmid or vector.

Claim 10 (Withdrawn) The immune cell of claim 9, wherein said plasmid or vector additionally comprises an expressible nucleic acid sequence encoding an antigen.

Claim 11 (Withdrawn) The immune cell of claim 8 or 9, wherein said dendritic cell additionally comprises tumor cell mRNA.

Claim 12 (Withdrawn) The immune cell of claim 4 or 5, wherein said surface marker, chemokine, cytokine, enzyme or transcription factor is selected from the group consisting of TNFα, IL-1, IL-1b, IL-2, TNFβ, IL-6, IL-7, IL-8, IL-23, IL-15, IL18, IL-12, IFNγ, IFNα, lymphotoxin, DEC-25, CD11c, CD40, CD80, CD86, MHCI, MHCII, ICAM-1, TRANCE, CD200, CD200 receptor, CD83, CD2, CD44, CD91, TLR-4, TLR-9, 4-1BBL, nicotinic receptor, GITR-L, OX-40L, CD-CK1, TARC/CCL17, CCL3, CCL4, CXCL9, CXCL10, IKK-β, NF-κB, STAT4, ICSBP/IFN, regulatory factor 8, TRAIL, Inos, arginase, FcgammaRI and II, thrombin, MIP-1α and MIP-1B.

Claim 13 (Withdrawn) The immune cell of claim 12, wherein said cytokine is selected from IL-12 and TNFα.

Claim 14 (Withdrawn) The immune cell of claim 12 or 13, wherein said immune cell inhibits T cell activity.

Claim 15 (Withdrawn) The immune cell of claim 4 or 5, wherein said surface marker and enzyme are selected from the group consisting of B7-H1, EP2, IL-10 receptor, VEGF-receptor, CD101, PD-L1, PD-L2, HLA-11, DEC-205, CD36 and indoleamine 2,3-dioxygenase.

Claim 16 (Withdrawn) The immune cell of claim 15, wherein said immune cell stimulates T cell activity.

Claim 17 (Withdrawn) The immune cell of claim 14 or 16, wherein said immune cell is administered to a mammalian subject for the treatment of an immune disorder.

Claim 18 (Withdrawn) The immune cell of claim 17, wherein said immune disorder is selected from the group consisting of septic shock, rheumatoid arthritis, transplant rejection, scleroderma, immune mediated diabetes, chronic inflammatory bowel syndrome, HIV, cancer, colitis, Crohn's disease, Goodpasture's syndrome, Multiple Sclerosis, Grave's disease, Hashimoto's thyroditis, Autoimmune pernicious anemia, Autoimmune Addison's disease, Vitiligo, Myasthenia gravis, Scleroderma, Systemic lupus erythematosus, Primary Sjogren's syndrome, Polymyositis, Pemphigus vulgaris, Ankylosing spondylitis, Acute anterior uveitis, Hypoglycemia and inflammation associated with chronic illness.

Claim 19 (Withdrawn) The immune cell of any one of claims 1 to 18, wherein said immune cell is provided as a composition comprising a pharmaceutically acceptable carrier.

Claim 20 (Withdrawn) The immune cell of claim 19, wherein said composition additionally comprises an adjuvant and/or an antigen.

Claim 21 (Withdrawn) The use of a mammalian immune cell that exhibits a targeted gene-specific knockout phenotype, wherein said gene is selected from one or more of a surface marker, a chemokine, a cytokine, an enzyme and a transcriptional factor, in a medicament for the treatment of an immune disorder characterized by inappropriate T cell activity.

Claim 22 (Currently Amended) ~~The use of a siRNA possessing specific homology to part or the entire exon region of a gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor produced within an antigen presenting cell (APC), comprising preparing said siRNA in a medicament for the treatment of an immune disorder characterized by inappropriate~~

~~T cell activity.~~ A method for the treatment of an immune disorder characterized by inappropriate T cell activity in a subject, the method comprising administering to said subject an siRNA possessing specific homology to part or the entire exon region of IL-12 and/or IFN-gamma for a time and amount sufficient to alter T-cell activity in said subject and treat said immune disorder.

Claim 23 (Withdrawn) The use of claim 20 or 21, wherein said gene is selected from the group consisting of TNFα, IL-1, IL-1b, IL-2, TNFβ, IL-6, IL-7, IL-8, IL-23, IL-15, IL18, IL-12, IFNγ, IFNα, lymphotoxin, DEC-25, CD11c, CD40, CD80, CD86, MHCI, MHCII, ICAM-1, TRANCE, CD200, CD200 receptor, CD83, CD2, CD44, CD91, TLR-4, TLR-9, 4-1BBL, nicotinic receptor, GITR-L, OX-40L, CD-CK1, TARC/CCL17, CCL3, CCL4, CXCL9, CXCL10, IKK-β, NF-κB, STAT4, ICSBP/IFN, regulatory factor 8, TRAIL, Inos, arginase, FcgammaRI and II, thrombin, MIP-1α and MIP-1B.

Claim 24 (Currently Amended) The ~~use~~ method of claim 22, wherein said T cell activity is inhibited.

Claim 25 (Withdrawn) The use of claim 20 or 21, wherein said gene is selected from the group consisting of B7-H1, EP2, IL-10 receptor, VEGF-receptor, CD101, PD-L1, PD-L2, HLA-11, DEC-205, CD36 and indoleamine 2,3-dioxygenase.

Claim 26 (Withdrawn) The use of claim 25, wherein said T cell activity is stimulated.

Claim 27 (Currently Amended) The ~~use~~ method of claim ~~23 or~~ 24, wherein said immune disorder is selected from the group consisting of septic shock, rheumatoid arthritis, transplant rejection, scleroderma, immune mediated diabetes, chronic inflammatory bowel syndrome, HIV, cancer, colitis, Crohn's disease, Goodpasture's syndrome, Multiple Sclerosis, Grave's disease, Hashimoto's thyroditis, Autoimmune pernicious anemia, Autoimmune Addison's disease, Vitiligo, Myasthenia

gravis, Scleroderma, Systemic lupus erythematosus, Primary Sjogren's syndrome, Polymyositis, Pemphigus vulgaris, Ankylosing spondylitis, Acute anterior uveitis, Hypoglycemia and inflammation associated with chronic illness.

Claim 28 (Currently Amended) The ~~use~~ method of ~~any one of~~ claims ~~21 to 27~~ 22, wherein said ~~immune cell is selected from an endothelial cell and an~~ siRNA is provided within an antigen presenting cell (APC).

Claim 29 (Currently Amended) The ~~use~~ method of claim ~~28~~22, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a myeloid cell, a B lymphocyte and mixtures thereof.

Claim 30 (Currently Amended) The ~~use~~ method of claim 29, wherein said immune cell is a dendritic cell.

Claim 31 (Currently Amended) The ~~use~~ method of claim 30, wherein said dendritic cell is activated.

Claim 32 (Withdrawn) A composition for the treatment of an immune disorder, said composition comprising at least one of:

(a) a construct that inhibits the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor in an immune cell such that said immune cell alters T cell activity; and

(b) an immune cell wherein said immune cell comprises at least one construct that inhibits the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor,; and

(c) a pharmaceutically acceptable carrier,

wherein said composition alters T cell activity leading to an altered immune response.

Claim 33 (Withdrawn) The composition of claim 32, wherein said construct is selected from the group consisting of siRNA and hybrid DNA/RNA.

Claim 34 (Withdrawn) The composition of claim 32 or 33, wherein said immune cell is selected from the group consisting of an endothelial cell and an antigen presenting cell.

Claim 35 (Withdrawn) The composition of claim 34, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a myeloid cell, a B lymphocyte and mixtures thereof.

Claim 36 (Withdrawn) The composition of claim 35, wherein said immune cell is a dendritic cell.

Claim 37 (Withdrawn) The composition of claim 36, wherein said dendritic cell is activated.

Claim 38 (Withdrawn) The composition of claim 33, wherein said siRNA or hybrid DNA/RNA is provided within a plasmid or vector.

Claim 39 (Withdrawn) The composition of claim 38, wherein said plasmid or vector additionally comprises an expressible nucleic acid sequence encoding an antigen.

Claim 40 (Withdrawn) The composition of claim 35 or 36, wherein said dendritic cell additionally comprises tumor cell mRNA.

Claim 41 (Withdrawn) The composition of any one of claims 32 to 40, wherein said surface marker, chemokine, cytokine, enzyme or transcription factor is selected from the group consisting of TNFα, IL-1, IL-1b, IL-2, TNFβ, IL-6, IL-7, IL-8, IL-23, IL-15, IL18, IL-12, IFNγ, IFNα, lymphotoxin, DEC-25, CD11c, CD40, CD80, CD86, MHCI, MHCII, ICAM-1, TRANCE, CD200, CD200 receptor, CD83, CD2, CD44, CD91, TLR-4, TLR-9, 4-1BBL, nicotinic receptor, GITR-L, OX-40L, CD-CK1, TARC/CCL17, CCL3, CCL4, CXCL9, CXCL10, IKK-β, NF-κB, STAT4, ICSBP/IFN, regulatory factor 8, TRAIL, Inos, arginase, FcgammaRI and II, thrombin, MIP-1α and MIP-1B.

Claim 42 (Withdrawn) The composition of claim 41, wherein said cytokine is selected from IL-12 and TNFα.

Claim 43 (Withdrawn) The composition of any one of claims 32 to 40, wherein said surface marker and enzyme are selected from the group consisting of B7-H1, EP2, IL-10 receptor, VEGF-receptor, CD101, PD-L1, PD-L2, HLA-11, DEC-205, CD36 and indoleamine 2,3-dioxygenase.

Claim 44 (Withdrawn) The composition of any one of claims 32 to 43, wherein said immune disorder is selected from the group consisting of septic shock, rheumatoid arthritis, transplant rejection, scleroderma, immune mediated diabetes, chronic inflammatory bowel syndrome, HIV, cancer, colitis, Crohn's disease, Goodpasture's syndrome, Multiple Sclerosis, Grave's disease, Hashimoto's thyroditis, Autoimmune pernicious anemia, Autoimmune Addison's disease, Vitiligo, Myasthenia gravis, Scleroderma, Systemic lupus erythematosus, Primary Sjogren's syndrome, Polymyositis, Pemphigus vulgaris, Ankylosing spondylitis, Acute anterior uveitis, Hypoglycemia and inflammation associated with chronic illness.

Claim 45 (Withdrawn) The composition of any one of claims 32 to 44, wherein said composition is used to perfuse tissues and/or organs *ex vivo*.

Claim 46 (Withdrawn) A method for inhibiting the T cell activating ability of a DC, the method comprising transforming said DC with a constructcapable of inhibiting the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor.

Claim 47 (Currently Amended) A method for decreasing the immunogenicity and rejection potential of an organ for transplantation, said method comprising perfusing said organ with a composition that suppresses T cell activity, said composition comprising at least one ~~construct~~siRNA that inhibits the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine,

an enzyme or a transcriptional factor produced within an antigen presenting cell (APC) and a pharmaceutically acceptable carrier.

Claim 48 (Currently Amended) The method of claim ~~46 or~~ 47, wherein said ~~construct is selected from~~ siRNA ~~and hybrid DNA/RNA~~is provided within a dendritic cell.

Claim 49 (Currently Amended) The method of claim ~~48~~47, wherein said siRNA is provided within an antigen presenting immune cell.

Claim 50 (Withdrawn) A method for making an immune cell that alters the activity of T cells *in vivo*, said method comprising;

- transforming immune cells *in vitro* with at least one construct that inhibits the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor.

Claim 51 (Currently Amended) A method for the treatment of autoimmune disorders and transplantation rejection in a mammalian subject, said method comprising administering a therapeutically effective amount of a composition to said subject, said composition comprising DC that contain at least one ~~construct~~siRNA that inhibits the expression of an endogenous target gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor, wherein said DC suppresses T cell activity.

Claim 52 (Currently Amended) The method of claim ~~50 or~~ 51, wherein said ~~construct is selected from~~ siRNA ~~and hybrid DNA/RNA~~is provided within an activated dendritic cell.

Claim 53 (Previously Presented) A method for the treatment of autoimmune disorders and transplantation rejection in a mammalian subject, said method comprising administering a therapeutically effective amount of a composition to said subject, said composition comprising an siRNA targeted to inhibit expression of an endogenous target gene in an antigen presenting cell (APC), said gene encoding a

surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor produced within an APC, wherein said siRNA suppresses T cell activity.

Claim 54 (Currently Amended) The method of claims ~~51, 52~~ or 53, wherein said autoimmune disorder is selected from the group consisting of septic shock, rheumatoid arthritis, transplant rejection, scleroderma, immune mediated diabetes, chronic inflammatory bowel syndrome, HIV, cancer, colitis, Crohn's disease, Goodpasture's syndrome, Multiple Sclerosis, Grave's disease, Hashimoto's thyroditis, Autoimmune pernicious anemia, Autoimmune Addison's disease, Vitiligo, Myasthenia gravis, Scleroderma, Systemic lupus erythematosus, Primary Sjogren's syndrome, Polymyositis, Pemphigus vulgaris, Ankylosing spondylitis, Acute anterior uveitis, Hypoglycemia and inflammation associated with chronic illness

Claim 55 (Currently Amended) A method for the treatment of an immune disorder characterized by inappropriate T cell activity in a mammalian subject, said method comprising administering a therapeutically effective amount of a composition that suppresses T cell activity to said subject, said composition comprising at least one ~~construct~~siRNA that possess specific homology to part or the entire exon region of a gene encoding a surface marker, a chemokine, a cytokine, an enzyme or a transcriptional factor produced within an antigen presenting cell (APC), and a pharmaceutical acceptable carrier.

Claim 56 (Currently Amended) The method of claim 55, wherein said ~~construct is selected from~~ siRNA ~~and hybrid DNA/RNA~~ is provided within a dendritic cell.

Claim 57 (Previously Presented) The method of claim 55, wherein said immune disorder is selected from the group consisting of septic shock, rheumatoid arthritis, transplant rejection, scleroderma, immune mediated diabetes, chronic inflammatory bowel syndrome, HIV, cancer, colitis, Crohn's disease, Goodpasture's syndrome, Multiple Sclerosis, Grave's disease, Hashimoto's thyroditis,

Autoimmune pernicious anemia, Autoimmune Addison's disease, Vitiligo, Myasthenia gravis, Scleroderma, Systemic lupus erythematosus, Primary Sjogren's syndrome, Polymyositis, Pemphigus vulgaris, Ankylosing spondylitis, Acute anterior uveitis, Hypoglycemia and inflammation associated with chronic illness.

Claim 58 (Previously Presented) The method of claim 55, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a myeloid cell, a B lymphocyte and mixtures thereof.

Claim 59 (Previously Presented) The method of claim 58, wherein said antigen presenting cell is a dendritic cell.

Claim 60 (Previously Presented) The method of claim 59, wherein said dendritic cell is activated.

Claim 61 (Currently Amended) The method of claim 56, wherein said siRNA ~~or hybrid DNA/RNA~~ is provided within a plasmid or vector.